

ABSTRACT

A dehydrogenated fuel tank 32 which is replenished with an organic hydride-contained hydrogenated fuel and a gasoline tank 48 which is replenished with normal gasoline are provided. In order to separate the hydrogenated fuel into a hydrogen rich gas and dehydrogenation product, a dehydrogenation reactor 22 and a separator 40 are provided. The hydrogen rich gas flows into a hydrogen pipe 44 and is supplied into the intake pipe 12. A dehydrogenation product pipe 42 is provided with a flow separator 46. The dehydrogenation product is guided into the gasoline tank 48 until the mixed ratio of the dehydrogenation product reaches the maximum allowable ratio in the gasoline tank 48. Only if the ratio reaches the maximum allowable ratio, the dehydrogenation product is collected into a dehydrogenation product tank 50.